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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,526	10/14/2005	Peter Droscher	63360(51994)	4706

21874 7590 01/18/2007  
EDWARDS & ANGELL, LLP  
P.O. BOX 55874  
BOSTON, MA 02205

EXAMINER
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PATEL, VISHAL A

ART UNIT	PAPER NUMBER
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3673

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/534,526	DROSCHE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vishal Patel	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/11/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Goldswain et al (US. 6,116,610).

Goldswain discloses a secondary seal element (figure 2) including a base body (24') made of a synthetic material (plastic), the base body comprising a base portion (portion adjacent to 48) and a seal portion (lips 28), the base and seal portions including coaxially aligned, axially adjacent through bores (bore formed by 28 and bore of base portion) for the passage of a component, and an annular disc element (40 in formed in an annular form) accommodated in the base portion and including a through bore (inner bore of the disc element) coaxially aligned with the through bores in the base and seal portions, the annular disc element being formed of a material which differs from that of the base body (figures shown this by the cross-hatching), wherein in the unloaded state, the through bore of the annular disc element has a radial dimension d which is greater than that D2 of the through bore of the seal portion and smaller than that D1 of the base portion of the base body (figure 2), and in that the material of the annular disc element comprises a carbon material.

Regarding claim 2: The annular disc element is provided in a recess (recess having surface 46) in an end face of the base portion and projects axially beyond the end face (figure 2).

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Regarding claim 3: The synthetic material of the base body comprises PTFE.

Regarding claim 4: The seal portion comprises a pair of radially spaced resilient web element (lips 28) having opposed outwardly directed sealing surfaces.

Regarding claim 5: The secondary sealing element having a means (spring 30) for radially expanding the web elements in a resilient manner.

Regarding claim 6: The base portion has an essentially rectangular cross-section (this is the case before the recess is formed in the base portion). Also this is shown in figure 1, where the disc element would be portion of 14 that is below 34.

Regarding claim 7: The elements now shown in figure 2 that are similar to the elements that are shown in figure 1. A mechanical face seal device comprising a pair of cooperating seal rings (13 and 10 of figure 2 that are similar to the rings 10 and 13 shown in figure 1) of which one is urged towards the other by an axial bias force (force by spring 16 that acts on 12 and then is acted on 13) and is axially moveably disposed on a sleeve (sleeve of 12), wherein for the purpose of sealing the one sealing seal ring with respect to the sleeve, a secondary sealing element (element shown in figure 2 that is between 12 and 14) according to claim 1 is provided in a thrust ring (14) seated on the sleeve in axially moveable manner for transmitting the bias force, and wherein the sleeve is formed of a material having a coefficient of thermal expansion which essentially corresponds to that of the carbon material of the annular disc element (this would be the case since both the sleeve, thrust ring and disc element are made of metal).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bauman et al (US. 5,921,556).

Bauman discloses a secondary seal element (figures 2-4) including a base body (62) made of a synthetic material (plastic), the base body comprising a base portion (portion after 84 and ending at 72) and a seal portion (74 and 84), the base and seal portions including coaxially aligned, axially adjacent through bores (bore formed by 54 and bore of base portion between 84 and 94) for the passage of a component, and an annular disc element (94) accommodated in the base portion and including a through bore (bore 98) coaxially aligned with the through bores in the base and seal portions, the annular disc element being formed of a material which differs from that of the base body (figures shown this by the cross-hatching), wherein in the unloaded state, the through bore of the annular disc element has a radial dimension  $d$  which is greater than that  $D2$  of the through bore of the seal portion and smaller than that  $D1$  of the base portion of the base body (figure 4).

Bauman discloses the claimed invention except for the annular disc element comprises a carbon material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the insert of Bauman to have carbon, since it has been held to be within the general skill of a worker in the art to select a know material on the basis of its suitability for the intended use as a matter of obvious design choice and well know to provide carbon in PTFE to provide increase strength. In re Leshin, 125 USPQ 416.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldswain.

Goldswain discloses the claimed invention except for the sleeve formed of tungsten carbide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sleeve of Goldswain be formed of tungsten carbide, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and to provide mechanical expedience. In re Leshin, 125 USPQ 416.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Watanabe et al, Stephenson et al, Baty, Warner and Siegrist et al. Furthermore the reference of Baty teaches every limitation of claim 7 except the secondary sealing element having a disc element, which is taught by either Bauman or Goldswain or Siegrist et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP

January 14, 2007

A handwritten signature in black ink, appearing to read 'Vishal Patel', with a stylized flourish at the end.

Vishal Patel  
Patent Examiner  
Tech. Center 3600